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ABSTRACT

This paper reviews significant research findings from the past 10 years which demonstrate that teachers' attitudes, expectations, and behavior have significant practical effects on student achievement. Although causes of differential interaction are not definitely established, it is clear that many teachers vary sharply in their interaction patterns with high- and low-achieving students. Explanations for this differential teacher behavior include the complexity of the classroom setting; the ambiguous nature of student performance, teachers' beliefs about causality (their ability to cause or to influence student performance); and the feedback pattern of expectation, interpretation, and student behavior. Recent research also suggests that variations in different teachers' behavior toward low-achieving students may encourage student passivity as a consequence of role confusion. There is also evidence that students may be adversely affected by grouping according to ability, which often results in social contexts not conducive to learning. Research on the influence of student behavior, perceptions, and self-perceptions of classroom learning is also reviewed. The way students interpret teachers' behavior, their own ability, and learning activities may have effects on classroom learning that are quite independent of teachers' actual intentions or perceptions. (TE)

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RESEARCH ON TEACHER EXPECTATIONS

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I believe that we have made progress in classroom research during the past decade in part because we have started to examine more sophisticated questions. In order to continue this progress we must accept some of the limitations of research and especially the fact that research yields directions and concepts, not answers. Blind application of research findings needs to be discouraged, not only because the nature of any problem varies from class to class, but also because of our limited knowledge about the classroom processes and conditions that facilitate student achievement.

There is much to be learned about the forces that influence classroom thinking, behavior, and outcomes. For example, we have little information about conditions that are associated with achievement in subject areas other than basic skills, and virtually no consistent, reliable data concerning how to stimulate student affective growth. We need to acknowledge that describing and affecting classroom learning is an enormously complex task, and we should be suspicious of simple models of teaching that offer universal solutions to classroom problems. Thus, although I am very encouraged by the recent progress achieved by classroom researchers, I am equally impressed by the complexity of the classroom setting and by unexamined and unanswered questions that confront classroom research and practice.

Still, we know considerably more about classroom teaching than we did a decade ago. In 1973, information about the effects of classroom conditions on student achievement was weak and contradictory. In the ensuing 10 years the literature on basic skill instruction, especially in reading and mathematics, has moved from a state of confusion to a point where several successful field experiments have been conducted. These studies illustrate that teacher behavior can have significant, practical effects upon student achievement.

Extant findings clearly indicate that teachers vary widely in (among other things): (a) how they utilize time in the classroom,

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(b) how they manage classroom activities, (c) how they select and design classroom learning tasks, (d) how actively they teach and communicate with students about classroom learning tasks, and (e) the expectations and academic standards that they hold for themselves, peers, their classes, and for individual students. Not only do teachers vary across these dimensions, but research demonstrates that these aspects of classroom life are related to student achievement. Research also shows that student factors mediate between teaching and learning. A major goal of this paper is to describe research findings in one of these areas. The issue addressed here is the relationship between teacher expectations and student performance.

Teacher Expectations

Teachers vary considerably in how they use time, manage classrooms mediate textbook and curriculum assignments, and in the extent to which they emphasize either meaning or drill-like activities. However, instructional variation can be found not only between classrooms (e.g., how two teachers vary from one another in their classroom behavior), but also within classrooms (one teacher behaves in different ways toward subgroups of students in his/her class). For instance, some teachers who provide considerable feedback may evenly distribute their evaluative comments to students, but other teachers may provide feedback to only a few students in the class. Although some teachers fail to provide entire classes with appropriate content and stimulation, in many classrooms students perceived by teachers to be low achievers are the ones who receive inadequate instruction.

Much of the research conducted on teacher expectations in the 1970s consisted of classroom observational studies aimed at determining what teachers do in their interactions with high- and low-achieving students. The extent to which teachers differentiate in their behavior toward students has been found to represent an individual difference variable with some teachers varying their behavior more than others (Brophy & Good, 1974; Good & Brophy, 1980). Explanatory variables which indicate when and why teachers are likely to behave differently toward high- and low-achieving students have not been frequently studied (for exceptions see Cooper, 1979; Cooper & Good, 1983). It is not clear whether teachers who differentiate sharply in their behavior toward highs and lows do so because of personality variables (defensiveness, rigidity), school or classroom organizational factors, characteristics that individual pupils and groups of students bring to the classroom or a combination of these and other factors.

Although the causes of differential interaction are not definitely established, it is clear that many teachers vary sharply in their interaction patterns with high- and low-achieving students. Brophy and Good (1974) estimated that one-third of the classroom teachers who have been observed in related research have shown patterns of highly differentiated behavior toward high and low

achievers. Teachers differentiate their behavior toward students they perceive a high or low achievers in a variety of ways. (For a comprehensive discussion of these variables see Cooper & Good, 1983; Good & Brophy, 1978, in press). We will list here only a few of the ways teachers have been found to differ in their treatment of students: (a) calling on lows less often to answer classroom questions or to make public demonstrations, (b) waiting less time for lows to answer questions, (c) praising lows less frequently than highs after successful public responses, (d) criticizing lows more frequently than highs for incorrect public responses, and (e) not staying with lows in failure situations (providing clues, asking follow-up questions).

It is important to examine the implications of such teacher behaviors for low achievers. It seems that a good strategy for slow students who face such conditions would be not to volunteer or not to respond when called on because such an instructional system discourages students from taking risks. To the extent that students are motivated to reduce risks and ambiguity--and many argue that students are strongly motivated to do so--it seems that students would become more passive in order to reduce the risks of public failure.

Explanations for Differential Teacher Behavior

One basic cause of differential behavior is that classrooms are very busy and complex environments and it is difficult for teachers to accurately assess the frequency and quality of their interactions with individual students.

A second explanation involves the fact that much classroom behavior has to be interpreted before it has meaning. Research (e.g., Anderson-Levitt, in press) suggests that once a teacher develops an expectation about a student (e.g., the student is not capable of learning), the teacher interprets subsequent ambiguous classroom events in a way consistent with the original expectation. Good (1980) maintains that most classroom behavior is ambiguous and subject to multiple interpretations.

A third reason why teachers differentiate more or less in their behavior toward high- and low-achieving students involves the issue of causality. Some teachers believe that they can and will influence student learning (for example, see Brophy & Evertson, 1976). Such teachers may interpret student failure as the need for more instruction, more clarification, and eventually increased opportunity to learn. Other teachers, because they assign blame rather than assume partial responsibility for student failure, may interpret failure as the need to provide less challenge and fewer opportunities to learn. Teachers who do not have a strong sense that they can influence student learning are therefore more likely to overreact to student error and failure (perhaps by subsequently assigning work that is too easy) than teachers who feel that they can influence student learning

and that they are a partial cause of student failure when it does take place.

Another explanation for differential teacher behavior is student behavior. Students present themselves in different ways to teachers and these self-presentation styles may influence teacher responses. Dee Spencer Hall (1981) has noted that some students are able to time their misbehavior in such a way as to escape teacher attention, whereas other students who misbehave just as often are reprimanded considerably more frequently because the timing of their misbehavior is inappropriate. Carrasco (1979) suggests that students may demonstrate competence in a style that escapes teacher attention. According to Green and Smith (1983), the language some students use makes it likely that teachers will underestimate their potential.

Metz (1978) provides another illustration of how students may influence teacher behavior. She reports that students in low track junior high classes like to do seatwork and dislike public interaction and classroom lecture. In part, low achievers prefer seatwork (and encourage teachers to assign more seatwork) because it presents less risk to them. We previously noted that teachers who do not possess management skills are especially likely to be vulnerable to student influence. Finally, McDermott (1976) found that in one classroom low achievers received less reading practice because they were interrupted frequently by other students during reading instruction. The interruptions were partly due to the fact that the low achievers' behavior during reading group allowed other students to interrupt them. Hence, students appear to be an active part of the expectancy cycle. The behavior of some students encourages and reinforces teaching efforts; whereas other students' behavior discourages teaching.

Green and Smith (1983) report that teachers use linguistic performances as one basis for evaluation of student performance. Thus, students must know academic information as well as how (and when) to display academic knowledge. Being accurate was not enough; students needed to present information in appropriate form at the appropriate time. Students have to know both the form and the content required. Thus, because of linguistic deficiencies and/or lack of awareness of social cues, some students may have much more difficulty convincing teachers that they know the material than do other students.

We have suggested several reasons why teachers may behave differently toward high- and low-achieving students: the complexity of the classroom, the ambiguous nature of student performance, teachers' beliefs about causality (their ability to cause or to influence student performance), and students' behavior. Obviously, these are dynamic influences and they often occur in combination. For example, Confrey and Good (in progress) note that in one class students were placed in either a high or low mathematics group on the basis of their teacher's interpretation of the students' performances during

the first weeks of mathematics class. The assignment of students to the high group was based in part upon the speed with which they were performing mathematics tasks.

Ironically, a week of observation indicated that students in the low group often watched what the teacher was doing in the high group and in interview sessions they indicated that they observed the highs because they wanted to get a step ahead and learn what the high group was learning. Unfortunately, because the teacher was interested in speed of performance and because lows spent time watching the other group rather than doing their own seatwork, their incomplete seatwork assignments reinforced the teacher's original expectations and supported the belief that the assignments to high and low groups were correct. Students' interpretations of their classroom roles and their behavior influenced and maintained teacher expectations and behaviors.

Student Passivity: Role Confusion

Recent research suggests that teachers vary widely in how they react to student problems and this variation may make it difficult for students to understand what is expected of them. As noted above, studies show that some teachers criticize low achievers more frequently than highs per incorrect response and praise lows less per correct answer than highs. In contrast, other teachers praise marginal or incorrect responses given by low achievers. These findings reflect two different types of teachers. Teachers who criticize lows for incorrect responses seem to be basically intolerant of these pupils. Teachers who reward marginal, even wrong answers, are excessively sympathetic and unnecessarily protective of lows. Both types of teacher behavior illustrate to students that effort and classroom performance are not related (Good & Brophy, 1977). Over time, such differences among teachers in the way they praise low achievers may reduce low students' efforts and contribute to a passive learning style.

Other teacher behaviors may also encourage student passivity. Low students who are called on frequently one year (the teacher believes that they need to be active if they are to learn) but are seldom called on the following year (the teacher doesn't want to embarrass them) may find it confusing to adjust to different role definitions. Ironically, these students, who have the least adaptive capacity, may be asked to make the most accommodation as they move from classroom to classroom. The greater variation in how different teachers interact with lows (in contrast to the more similar patterns of behavior that high students receive from different teachers) may be due to lack of agreement among teachers about how to respond to students who do not learn readily.

Even within a given year low achievers must often adjust to more varied expectations. This may be true in part because many lows have

several teachers (in addition to the regular teacher they may have a remedial math, reading, or speech teacher). Ironically, these students may receive less and/or different instruction because of attempts to provide them with extra assistance. Hill and Kimbrough (1981) studied pull-out instruction in schools that operated four or more categorial (special need) programs. They found that pull-out programs posed problems for students who received special assistance as well as for regular teachers because, due to scheduling problems, special programs were replacing, not supplementing, the core curriculum for many students.

Even when students did receive both regular and supplemental instruction, they were still not well served. Hill and Kimbrough found that in several cases incompatible teaching methods and materials were used in special and regular classrooms. Hence, many children became confused by conflicting approaches taken by special and regular teachers and conceptual learning was especially difficult for these students.

Grouping and Expectation Effects

Much of the recent research on teacher expectations examines teacher behavior toward individual students. However, there is growing evidence that students may also be affected by grouping, which often results in differential instruction. Confrey and Good (in progress) observed instruction in seventh-grade English and mathematics classes and interviewed some students in high and low groups in each class. They found that content presentation to low-achieving students was often characterized by fragmentation of material, repetition, little presentation of theory, and few integrating concepts. Students in low groups in classes grouped by ability spent much of their time on repetitive drill activities which were inadequately presented and discussed and not sufficiently related to relevant integrating concepts. Students were unlikely to receive the intended benefit from these activities even if they did them correctly.

Eder (1981) found that students in one first-grade class who were likely to have difficulty learning to read were assigned to groups whose social context was not conducive to learning. In part, this was because assignments to first-grade reading groups were based upon kindergarten teachers' recommendations and a major criterion of placement was the maturity of the students as well as their perceived ability. Eder observed reading group behavior throughout the year and found that the teacher discouraged interruptions of students' oral reading turns within the high group but not in the low group. According to Eder, the teacher may have been concerned with maintaining the interest of the low group during other students' reading turns (in general, their reading turns tended to be longer and filled with more pauses). The teacher may also have thought that lows had less intrinsic interest in the material; therefore, she was more

willing to encourage most forms of participation or responses from low students but demanded more appropriate behavior and responses from highs.

Because the most immature, inattentive students (as indicated by the kindergarten teachers) were assigned to low groups, it was almost certain that these groups would have more managerial problems (e.g., distractions) than others, especially early in the year. Indeed, because the teacher was often distracted from a student reader in the low group who was responding (because of the need to manage other students in the group, students often provided the correct word for the reader. Readers were not allowed time to ascertain words on their own, even though less than a third of the students interviewed reported that they liked to be helped and most thought this help interfered with their learning. Eder's work indicates that low students had less time than highs to correct their mistakes before other students and/or the teacher intervened.

Eder also found that students in the low groups spent 40% of their listening time not attending to the lesson (vs. 22% in the high groups). Low students frequently read out of turn, adding to the general confusion. Eder reports twice as many teacher "managerial acts" in the low groups as in the high groups (157 vs. 61), and found that turn interruption increased over the course of the year. Due to management problems, frequent interruptions, and less serious teaching, low students may inadvertently have been encouraged to respond to social and procedural aspects of the reading group rather than academic tasks.

It is difficult to conceptualize and describe what students learn in school, especially from the examination of practice in one classroom. However, it seems plausible that one of the effects of being in high and low reading groups in the classroom studied by Eder was that students learned <u>different norms for attention</u>. Students in the low reading groups were encouraged to be inattentive; whereas, students in the high group learned to attend to instruction.

Inappropriately low performance expectations are often associated with good teacher intentions, but such expectations still have harmful effects. As a case in point, Bob Germain (personal communication) has found instances of too much structure and direction. He found that textbooks were giving cues to poor readers about where they could find the answers to questions that appeared at the end of the chapter. Some low-achieving students simply read a particular page where they could find the answer rather than attempting to read all the materials. The cues embedded in the text materials were probably provided to help slow readers (in order not to overwhelm them). However, the practical effect was probably to encourage less reading and less thinking.

Teaching Dilemma

Clearly, teachers can expect too much or too little in their instructional interactions with students. This dilemma also has to be addressed by curriculum specialists who write textbooks and by policymakers. There are many instances in which teachers need to assign different types of material to high and low achievers. Teachers can make instructional mistakes by treating students too much alike, as well as too differently.

As I have pointed out elsewhere (Good, 1983), some teachers spend inadequate time with low achievers, but other teachers appear to find appropriate time for such students. Hence, rules such as "call on lows" more often will do as much harm as good (i.e., since some teachers are already doing these behaviors appropriately an increase in their behavior would have dysfunctional effects). The variables that affect teaching are numerous and complex. Knowledge related to teacher expectation effects is therefore best imparted to teachers along with judgmental and decision-making skills about appropriate policy (not the provision of a few simple behaviors to use or avoid). For examples of work that illustrate and encourage teachers' use of decision-making skills generally, see Amarel (1981), and in the area of teacher expectations specifically, see Good and Brophy (1978, in press).

Student Influence

Although there is conclusive evidence that teachers significantly affect student learning, student motivation and effort are also important aspects of classroom performance. Student behavior influences teachers' perceptions of students and in some cases affects the quality of instruction students receive. More directly, student perceptions of teacher behavior and student motivation are likely to influence how much effort students expend in the classroom (e.g., when classroom tasks are ambiguous and/or complex do students perceive them as a challenge and think and work or do they perceive such tasks as a threat and negotiate with teachers?).

There is increasing evidence that students' perceptions and self-perceptions are important sources of information about classroom learning. One wonders how students perceive standards and how their perceptions influence performance. Too little research has attempted to answer such questions and we need to more systematically study how students perceive and respond to academic demands. How students respond to these expectations should be an important research agenda in the 1980s.

Student Perceptions of Schooling

In a thorough review and integration of research on student perceptions of schooling, Weinstein (1983) examines studies of students' perceptions of teachers, other school personnel, peers, causes of behavior, the classroom, and the school.

Perceptions of teachers. Concerning perceptions of teacher behavior, classrooms vary in the extent of differential treatment perceived by students. There is evidence that students are highly sensitive to variations in teacher treatment (interaction patterns and nonverbal messages) within classrooms. Through varied treatment, students infer teacher expectations for academic performance. Moreover, differential relationships hold between teacher expectations, student expectations, and student achievement in classrooms where greater differential treatment is perceived than in other classrooms (e.g., Brattesani, Weinstein, Middlestadt & Marshall, 1981; Weinstein & Middlestadt, 1979; Weinstein, Marshall, Brattesani & Middlestadt, in press). That is, in classrooms where students were aware of teachers' differential treatment of high and low achievers, students' own expectations for themselves more closely matched the teachers' expectations, and the teachers' expectations for their students more clearly predicted student performance.

Studies of students' perceptions of teacher instructional behavior (e.g., Peterson & Swing, 1982; Winne & Marx, 1980, 1982) suggest that student perceptions and cognitions during instruction can mediate the effects of instruction on student achievement. Evidence indicates that students often may not perceive what teachers intend. Also, some students who appear to observers to be attending to lecture or class discussion reported in interviews later that they were actually thinking about other things, such as how they would perform in relation to other students.

In some classrooms, students may perceive more differential teacher behavior towards highs and lows than is indicated by behavioral records made by classroom observers (Cooper & Good, 1983). It is not clear whether students report greater differences in teacher behavior because they have more cues and are more sensitive to teaching acts than observers or because students "overreact" to certain cues. Some students are likely reliable observers of classroom events and others are probably not perceptive. Still, there is evidence that students can provide valuable insight about teaching (Cooper & Good, 1983; Weinstein, 1983). Just as teachers may act upon their beliefs and perceptions (e.g., they believe an average student is below average), students also react according to their perceptions of teachers' behaviors and intentions (Weinstein, in press).

Perceptions of ability. Developmental literature suggests that young children perceive ability or intelligence as a changeable

entity which can be improved with effort. They also seem to rely on absolute and individual standards rather than norms to assess ability. Blumenfeld and colleagues (1982) argue that young children's self-perceptions are thus biased in a positive direction.

However, there is much evidence that as students get older, classroom conditions (feedback patterns, reward structures) which increase the differences between high and low achievers affect students' perceptions of ability, and their perceptions of their ability more closely match their teachers' perceptions. Students also evaluate their own abilities by comparing themselves with peers during the daily performance of tasks in classrooms. The evaluative cues available to students, however, differ according to the structure (e.g., whole-class, group, or individual; lecture, seatwork) and climate (e.g., extrinsic vs. intrinsic reward structure) of the classroom and the school. A climate with high and flexible expectations, varied tasks and opportunities for evaluation, a focus on task mastery, and a belief in the changeability of intelligence can provide a context in which students can evaluate themselves on several dimensions and feel positive about their potential for future success.

Achievement behavior has been the most frequently studied process in relation to students' perceptions of the causes of behavior, particularly in an attribution framework. Applications of attribution theory to classrooms will have to consider how success and failure judgments are made by students. Recent work suggests that children's definitions of success vary across individual pupils, tasks, and situations (Frieze, Francis & Harrusa, 1982). One study (Frieze & Snyder, 1980) of the attributional patterns of elementary students for success and failure in four situations showed that the achievement situation elicited different causal mechanisms than other situations. Effort was most important for school testing situations, while ability was seen as critical to finishing an art project or winning in football.

Perceptions of Learning Activities

Students' perceptions of their learning activities vary widely. Recent literature suggests many young children and some older students are deficient in metacognitive skills, particularly in four areas: (a) predicting the difficulty of a task, (b) assessing the incomprehensibility or incompleteness of task directions, (c) planning ahead and using available time wisely, and (d) monitoring their progress and evaluating their own performance. Many students many therefore need some assistance in developing these skills.

Conclusion

Initially, most classroom research focused upon teacher beliefs and teacher behavior, and this same trend was evidenced in the area of teacher expectations. Indeed, the focus on teacher expectations has yielded a rich way of looking at and improving upon classroom behavior (Good & Brophy, 1978, in press). However, recent research has shown that students may interpret the same teacher behavior in different ways. Hence, those interested in teacher expectation effects have become more interested in student expectations and in how students influence teachers. As research becomes more complex and comprehensive and as research asks more sophisticated questions, it may become possible to increase our understanding of classroom communication. However, at present it is clear that extant research has already yielded important information and concepts that can be used to improve practice.

REFERENCES

Anderson-Levitt, K. (in press). Teacher interpretation of student behavior: Cognitive and social processes. Elementary School Journal.

Amarel, M. (1981, April). Literacy: The personal dimension. Paper presented at the annual meeting of the American Educational Research Association, Los Angeles.

Blumenfeld, P., Pintrich, P., Meece, J., & Wessels, K. (1982). The formation and role of self-perceptions of ability in elementary classrooms. Elementary School Journal, 82, 401-420.

Brattesani, K., Weinstein, R., Middlestadt, S., & Marshall, H. (1981, April). Using student perceptions of teacher behavior to predict student outcomes. Paper presented at the annual meeting of the American Educational Research Association, Los Angeles.

Brophy, J., & Evertson, C. (1976). Learning from teaching: A developmental perspective. Boston: Allyn & Bacon.

Brophy, J., & Good, T. (1974). Teacher-student relationships: Causes and consequences. New York: Holt, Rinehart & Winston.

Carrasco, R. (1979, April). Expanded awareness of student performance: A case study in applied ethnographic monitoring in a bilingual classroom (Social Linguistic Working Paper No. 60). Austin, TX: Southwest Educational Development Laboratory.

Confrey, J., & Good, T. (in progress). A view from the back of the classroom: Integrating student and teacher perspectives of content with observational and clinical interviews.

Cooper, H. (1979). Pygmalion grows up: A model for teacher expectation communication and performance influence. Review of Educational Research, 49, 389-410.

Cooper, H.M., & Good, T.L. (1983). Pygmalion grows up: Studies in the expectation communication process. New York: Longman Press.

Eder, D. (1981). Ability grouping as a self-fulfilling prophecy: A micro-analysis of teacher-student interaction. Sociology of Education, 54, 151-161.

Frieze, I., Francis, W., & Harrusa, E. (1982). Defining success in classroom settings. In J. Levine & M. Wang (Eds.), Teacher and student perceptions: Implications for learning. Hillsdale, NJ: Erlbaum.

Frieze, I., & Snyder, H. (1980). Children's beliefs about the causes of success and failure in school settings. Journal of Educational Psychology, 72, 186-196.

Good, T. (1980). Classroom expectations: Teacher-pupil interactions. In J. McMillan (Ed.), The social psychology of school learning. New York: Academic Press.

Good, T. (1983). Recent classroom research: Implications for teacher education. Invited address delivered at the annual meeting of AACTE, Chicago.

Good, T., & Brophy, J. (1977). Educational psychology: A realistic approach (1st ed.). New York: Holt, Rinehart & Winston.

Good, T., & Brophy, J. (1978). Looking in classrooms (2nd ed.). New York: Harper & Row.

Good, T., & Brophy, J. (1980). Educational psychology: A realistic approach (2nd ed.). New York: Holt, Rinehart & Winston.

Good, T., & Brophy, J. (in press). Looking in classrooms (3rd ed.). New York: Harper & Row.

Green, J., & Smith, D. (1983). Teaching and learning: A linguistic perspective. Elementary School Journal, 83, 353-391.

Hill, P., & Kimbrough, J. (1981). The aggregate effects of federal education programs (The Rand Publication Series). Santa Monica: The Rand Corporation.

McDermott, R. (1976). Kids make sense: An ethnographic account of the interactional management of success and failure in one first-grade classroom. Unpublished doctoral dissertation, Stanford University.

Metz, M. (1978). Classrooms and corridors: The crisis of authority in desegregated secondary schools. Berkeley: University of California Press.

Peterson, P., & Swing, S. (1982). Beyond time on task: Students' reports of their thought processes during classroom instruction. Elementary School Journal, 82, 481-491.

Spencer Hall, D. (1981). Looking behind the teacher's back. Elementary School Journal, 81, 281-289.

Weinstein, R. (1983). Student perceptions of schooling. Elementary School Journal, 83, 287-312.

Weinstein, R. (in press). Student perceptions of schooling. Elementary School Journal.

Weinstein, R., Marshall, H., Brattesani, K., & Middlestadt, S. (in press). Student perceptions of differential teacher treatment in open and traditional classrooms. Journal of Educational Psychology.

Weinstein, R., & Middlestadt, S. (1979). Student perceptions of teacher interactions with male high and low achievers. Journal of Educational Psychology, 71, 421-431.

Winne, P., & Marx, R. (1980). Matching students' cognitive responses to teaching skills. Journal of Educational Psychology, 72, 257-264.

Winne, P., & Marx, R. (1982). Students' and Teachers' views of thinking processes for classroom learning. Elementary School Journal, 82, 493-518.